

02.06.2023

FALL PROTECTION AND PREVENTION

DON'T FALL FOR UNSAFE CRAP.

ROLES & RESPONSIBILITIES

Project Supervision

- Identify and provide the proper fall protection equipment and materials for the task.
- Audit the jobsite for fall protection hazards and compliance.
- Ensure employee-owners are trained in fall protection requirements in the Safety Management Program.

Employee-owners

- Inspect fall protection equipment prior to use.
- Evaluate work tasks for fall protection needs.
- Provide project supervision with feedback and recommendations for fall protection compliance.

PROCEDURES

General Requirements

- Where employee-owners are exposed to a fall hazard greater than six (6) feet and are not protected by a fall restraint system such as a guard rail, a personal fall arrest system (PFAS) shall be used. A controlled access zone (CAZ) can be established if the guardrail can't be used.
- All floor/roof perimeters that are not a part of the leading edge shall have a standard guard rail.
- The leading edge shall have a warning line installed a minimum of six (6) feet back from the finished edge.
- The warning line shall limit access to all unfinished decks and deck edges.
 - + Refer to OSHA regulations §CFR 1926.502(f).
- If work is required beyond the warning line, employee-owners shall use a PFAS.

SAFETY MONITOR SYSTEMS

ARE NOT ALLOWED.

All floor/roof, stairway, and ladder openings shall have a guard rail installed at the landing. The guard rail will be arranged so that an employee-owner cannot step directly into the stairway/ladder opening

- Fall Arrest Equipment:
 - + PFAS equipment will comply with ANSI Z359.1. Approved manufacturers include Miller, Klein, Werner, Protecta, Guardian, MSA, UltraSafe, FallTech, and 3M.
 - + Anchorage points must be capable of supporting 5000 pounds per person.
 - + The hardware of the PFAS and other equipment must be compatible.
 - + All employee-owners shall be tied off 100% while exposed to a fall hazard.
- All floor/roof perimeters that are not a part of the leading edge shall have a standard guard rail.
- Never attach two pieces of fall arrest equipment unless authorized by the manufacturer.
- Unless otherwise specified by the manufacturer, attach the shock absorber end of the lanyard to the harness.

Never modify fall arrest equipment.

- Fall protection systems, including horizontal and vertical lifelines, shall be commercially manufactured or engineered.
- Employee-owners will use a PFAS when working on columns, shear walls, girder-stanchions, and cable systems where standard guardrails are not available for fall prevention.

Standard Guardrails

- Do not step on, climb, straddle, use a ladder, lean over or lean through guardrails.
- Lumber for the standard guard railing system consists of 2X4X8 standard lumber on 8-foot centers. The top rail of 2 inches by 4 inches, 42 inches above the finish surface with mid railing and toeboard.
- Wire cables shall be 3/8 inch or equivalent strength and shall be supported by stanchions spaced no greater than 8 feet on center and shall be maintained with minimum deflection. The top cable shall be 42 inches above the finish floor and the mid cable shall be at 21 inches with the toe board.
- Guardrails will not be used as anchor points for fall arrest equipment unless they are approved by a structural engineer for that specific purpose.

Safety Nets

- Debris nets will not be used for personnel use unless a personal net is incorporated. Debris will be cleaned out frequently.
- The use of safety nets requires a rescue plan for the removal of a person.
- Nets must be tested in accordance with OSHA Regulations immediately after being installed.

Scaffolds

- Frame scaffold must be pinned before fall equipment is used including legs.
- Secure the first level to avoid possible tip-over, before fall arrest equipment is used.
- Fall arrest lanyard must be shock absorbing.
- If erecting a scaffold next to the structure, consider a retractable or rope lifeline properly anchored to the roof of the structure.
- PFAS shall be utilized erecting/dismantling scaffolds (i.e., including tubular scaffolds, Morgan scaffolds, etc.).

Steel Erection

- Install horizontal/vertical cables on the ground.
- Plan the routes of travel up and around the structure and stick to them.
- Inspect harnesses for cut webbing under the buttocks from cooning (straddling) work methods.
- Do not work connecting steel in unusually windy or wet weather conditions.
- Approved work boots for use on specific walking surfaces.
- Do not permit free climbing of columns. Instead, use ladders.
- Work with fabricators to eliminate fall hazards.
- Walk the lower flange straddling the beam in order to unhook the crane from the load once the beam is bolted.

Decking

- Plan the location of bundles of decking to eliminate the necessity of carrying or dragging panels.
- Establish a fall protection plan with the use of retractable lifeline or static lines. Verify that structural members can safely support the weight of a bundle of decking (all lateral braces installed).
- All extra grating material shall be maintained for use on future projects. For purposes of reuse, do not cut expanded metal grating for use on smaller holes.

Maintenance & Inspection

- Guardrails shall be inspected daily to ensure completeness and will be re-tensioned as needed.
- Catenary lines shall be inspected daily.
- Warning lines shall be inspected daily.
- Each employee-owner using a PFAS or fall restraint system shall inspect their equipment prior to use. Inspection items include the following:
 - + Harness webbing shall be free from nicks or frayed material.
 - + D-rings and lanyard hardware shall not be deformed or cracked.
 - + All body harnesses and lanyard assemblies shall have a legible tag attached that will identify the manufacturer. Equipment that does not have a legible manufacturer tag shall not be used.

Rescue Planning

- Never put an individual in a situation where, in the event of a fall, prompt rescue would be impractical/impossible.
- Should a worker be injured on the jobsite, a quick estimate of the extent of injuries shall be made. If the injury is determined to be more than a minor injury, utilize emergency procedures. Consider equipment such as:
 - + Basket stretchers (stokes) with lifting bridals
 - + Aerial lift availabilities
 - + Systems that include self-rescue/controlled descent

Site Specific Fall Protection Plans

- The Safety Manager will be consulted to assist in the development of the plan.

TRAINING

General Training Requirements

- Supervisors shall train employee-owners working on the site on the proper use of the fall protection for the system(s) that has been chosen for use on the project.
 - + Employee-owners must be trained on the use of equipment and proper anchor points.
 - + Re-training through weekly safety meetings on the topic of fall protection is available in the resources below.